

I. Amendments to the Specification:

A. Please insert after the first full paragraph on page 2 and immediately **before** the header "SUMMARY OF THE INVENTION" the following:

"This invention relates to a method of and system for distributing and redeeming electronic coupons or "tokens" in a computer network environment and more specifically to a method and system for distributing, in advance of a request for information for which the "token" has relevance which may be redeemed.

With the rapid growth of computer networking and requests for information from one computer to the next e.g. the Internet, it has become common practice for a provider of information (a "Server") to provide each specific requester of information (a "Client"), with an electronic "token" (commonly referred to as a "Cookie") for the purpose of "recognizing" the client and/or providing some pre-determined and pre-programmed level of customization at the discretion of the information provider.

Thus, in the prior art, the first time a client makes an electronic request for information from the server, the server delivers the requested information and, in addition, an electronic "token" or Cookie that allows the "server" to recognize the "client" and is able to customize the information provided in subsequent requests. The Cookie can also be used to identify a specific client or set of clients to control access to specific information or entry points of the server's private network.

In ordinary commerce, information providers such as newspapers and magazines are used to attract or identify specific market segments of consumers in order to permit vendors to target consumers in those specific market segments with advertising. This frequently includes the use of coupons which may be redeemed by consumers for discounts on product purchases and for other benefits. Typically, the source of the coupon is either the vendor's own product or publication or that of a distributor or other information provider associated with the vendor. One of the benefits of coupons is that they provide the vendor with some measure of the effectiveness of their advertising by using coupons that are unique to each source of advertising. However, the tracking of paper coupons is a very time consuming and imprecise process.

With the advance of the Internet, consumers can download and print out coupons from

many online sources. Consumers can take these coupons to their local store to redeem them or return them to their source along with a proof of purchase in order to receive a refund by mail. These methods are both inconvenient and time consuming for the consumer. Currently, there is no effective way to distribute and redeem coupons online.

Accordingly, it is an object of this invention to provide an improved method and system for distributing and redeeming coupons in a network environment.”

B. Please insert after the first partial paragraph on page 5 and immediately **before** the header “BRIEF DESCRIPTION OF THE DRAWINGS” the following:

“The invention is directed to a method of and system for distributing and redeeming electronic coupons in a networked environment where the source of the coupons, the consumer and vendor are all connected to a common communications channel. The consumer, via a client system, can connect to a source of the coupons, typically a server, which will transfer an electronic coupon or a "book" of electronic coupons to the client. These coupons are transferred in advance of the client establishing a connection with the vendor's server in order to request information or obtain discounts on purchases of the vendors products or services. When the client does establish a connection with a vendor's server and initiates a transaction for information, goods or services, the vendor's server can recognize that the client bears a coupon which can modify the transaction and permit the client to redeem the coupon. The coupon can include an encrypted or encoded portion which would permit the server to communicate with another server such as an authentication server to authenticate and/or validate the coupon.

The system according to the invention includes a first server system, including a computer processor and associated memory and a client system, including a computer processor and associated memory, coupled to a communications channel. The client system is adapted to request information from the first server system and the first server system is adapted for transferring information over the communications channel. The first server system is also adapted for transferring an electronic coupon to client system and the client system is adapted for storing the electronic coupon in the associated memory. The system can further include a second server system, including a computer processor and associated memory, coupled to the

communications channel. The client can be adapted to initiate a transaction with the second server system. The second server system can be adapted to detect the electronic coupon in order to enable or modify the nature or value of the transaction. The system can further include a third server system, including a computer processor and associated memory, which can be coupled to the communications channel. The second server system can establish a connection with the third server system in order to enable the third server system to authenticate the electronic coupon and authorize the completion of the transaction contemplated.

In another embodiment, the first server system may be adapted for transferring an electronic token to the client system and the client system may be adapted for storing the electronic token in the associated memory. In this embodiment, all of the data relating to the coupon resides on a separate server system, and the electronic token includes pointer information pointing to the coupon data on the separate server system.

In another embodiment, the first server system may include script necessary to form a first website frame having a predetermined signature. The first server system provides an electronic token to the client system such that the electronic token uniquely corresponds to the predetermined signature. In this embodiment, the second server system also includes script necessary to form a second website frame having the same predetermined signature as the first website frame, such that the second server system may retrieve the electronic token deposited by the website frame. The electronic token may include the complete body of coupon information, or the electronic token may only include data identifying the client and pointing to coupon information associated with the client and residing on a separate server system.

The method according to the invention includes the steps of a client system requesting information from a first server system. The first server system transfers the requested information and includes an electronic coupon along with the information transferred. The client system stores the electronic coupon in memory. The client system subsequently requests information from a subsequent server system. The subsequent server system can detect that the client system holds the electronic coupon and upon initiation of a transaction with the subsequent server system, the subsequent server system can enable or modify the transaction, such as by providing a discount in the purchase price of goods or services or provide access or a modified level of access to the information requested as a function of the electronic coupon.”

C. Please insert after the paragraph on page 5 reading “FIGS. 3-11 are diagrams of the screen displays for each of the steps involved in the method in accordance with the present invention.” and immediately **before** the header “DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS” the following:

“FIG. 101 is a diagrammatic view of a system for distributing and redeeming electronic coupons in accordance with the present invention;

FIG. 102 is a flow diagram of a method of distributing and redeeming electronic coupons in accordance with the present invention;

FIG. 103 is a diagrammatic view of another embodiment of the system of FIG. 101;

FIG. 104 is a diagrammatic view of the reimbursement procedure of one embodiment of the system of FIG. 103; and,

FIG. 105 is a diagrammatic view of the reimbursement procedure of another embodiment of the system of FIG. 103.”

D. Please insert after the third full paragraph on page 13 the following:

“The present invention is directed to a method of and system for distributing and redeeming electronic coupons. An electronic coupon is essentially a token, issued by or under the authority of the issuer for the benefit of recipient. Typically, the recipient receives the electronic coupon and subsequently redeems it for the prescribed benefit at some later point in time. Preferably, the electronic coupon enables or modifies an anticipated transaction such as providing a discount in the price of goods or services provided by the issuer or the issuer's agent. In addition, the electronic coupon can enable or modify the level of access to privately held information or a server having restricted access. Alternatively, the electronic coupon can be used in transactions between two businesses, two government agencies or two governments wherein, for example, the businesses enter into an agreement relating to a transaction for goods or services or access to information, or the governmental bodies enter into an agreement relating to transactions regarding currency or information. Although the distribution of electronic coupons may be selectively tailored to particular users based upon the users' demographics, shopping and

spending habits, etc., a preferred embodiment of the invention distributes coupons to users independent of any known characteristics of the recipient.

FIG. 101 shows a diagram of a system 1000 for distributing and redeeming electronic coupons in accordance with a preferred embodiment of the present invention. The system 1000 includes Client system 1110, Server System A 1120, Server System B 1130, and Server System C 1140, all connected to a common communications channel 1160. Preferably, the Client system 1110, Server System A 1120, Server System B 1130, and Server System C 1140 can be a personal computer such as an IBM PC or IBM PC compatible system or an APPLE MacINTOSH system or a more advanced computer system such as an Alpha based computer system available from the Digital Equipment Corporation division of Compaq Computer Corporation or SPARC Station computer system available from SUN Microsystems Corp, although a main frame computer system can also be used. Preferably, the communications channel 1160 is a TCP/IP based network such as the Internet or an intranet, although almost any well known LAN, WAN, VPN technology can be used.

In one preferred embodiment of the invention, the Client system 1110 is an IBM PC compatible operating the Microsoft Windows 95 or 98 operating system and Server System A 1120, Server System B 1130, and Server System C 1140 are configured as Web Servers providing access to information such as web pages in HTML format via the HyperText Transport Protocol (http). Server System A 1120 is also configured to generate cookies and to transfer the cookies to the Client System 1110. The Client system 1110 includes software to allow viewing of web pages, commonly referred to as a Web Browser, such as Communicator available from Netscape Communications Corp. or Internet Explorer available from Microsoft Corp. The Client system 1110 is capable of accessing web pages located on Server System A 1120 and Server System B 1130. Server System C 1140 is an authentication server which includes the software necessary to authenticate electronic coupons prior to their redemption.

In one preferred embodiment, Service System A 1120 includes web server software that is adapted to produce an electronic coupon or a book of electronic coupons that is transferred to the Client system 1110 in the form of a Cookie that is stored in memory at the Client system. Preferably, the electronic coupon is a data structure which can include any or all of the following information elements: data representative of an electronic coupon serial number or identification

number, data representative of a unique key that can be used to validate or authenticate the coupon, data representative of the vendor that authorized the coupon and will redeem the coupon, data representative of the nature of the discount or access provided by the coupon, data representative of the server or entity that issued the coupon. In one preferred embodiment, the electronic coupon can be issued as part of an electronic coupon book. The coupon book can include data representative of a version number for the electronic coupon book and data representative of a serial number or identification number for the electronic coupon book.

In one preferred embodiment, the electronic coupon contains all the information necessary to redeem the coupon. Specifically, the electronic coupon identifies the grantor (i.e. the party or vendor that will redeem the electronic coupon), the nature of the discount or benefit provided and a unique serial number or other data structure that permits the electronic coupon to be authenticated or validated. Thus, a server redeeming this type of electronic coupon can obtain all the information necessary to redeem from the electronic coupon. The server can even include the software necessary to authenticate or validate the electronic coupon.

In an alternative embodiment, the electronic coupon book includes a unique serial number or identification number and a data structure useful for authenticating or validating the electronic coupon book. The actual content of the electronic coupon book can be determined, for example, by visiting a website which reads the coupon book serial number and provides the user with listing of the coupons available. A benefit to this configuration is the organization that issues the electronic coupon book can add vendors even after the electronic coupon book has been issued. Thus, if a vendor signs up with the organization that issues electronic coupon books after a particular coupon book has been issued to a client, the vendor can be added to the electronic coupon book at a later date. In order to redeem this type of electronic coupon, the server that intends to redeem the electronic coupon must connect to an authentication server which will authenticate or validate the coupon book and indicate the nature of the benefit of the electronic coupon to the server requesting authentication/validation. Another benefit of this configuration is that the coupons are relatively tamper proof, due to the authentication and validation facilities. In many prior art systems, coupons could be copied and/or altered by the user with relative ease; in the absence of validation/authentication schemes, few reliable methods for detection of such counterfeits exist.

In another embodiment, all of the information embodied in the coupon (i.e., nature of benefit, authentication data, grantor data, valid vendors, etc.) may reside on a separate "clearing house" server, such that the Cookie held by the Client system 1110 merely conveys identifying information relating to the Client that points to the coupon on the clearing house server. In this embodiment, a Client "receiving" a coupon results in a modification of the clearing house server database rather than a modification of data on the Client system; i.e., the Client system never physically receives the coupon. This embodiment requires communication between the server issuing the coupon and the clearinghouse server, via internet, conventional telephone line or other suitable communications channel. Likewise, when the coupon is to be redeemed by the Client system 1110, the redeeming server must establish a link to the clearinghouse server for identification, validation and authentication. In an alternate embodiment, the coupon or coupons residing on the clearinghouse server may be provided to a printing device peripheral to the clearinghouse server, such that hard-copy versions of the coupons may be mailed, sent via facsimile, or otherwise delivered to the Client system 1110.

FIG. 102 shows a flow chart 2000 of a method of distributing and redeeming coupons in accordance with one preferred embodiment of the invention. In a preliminary step 1210, the client system requests information from Server A. In the next step 1212, Server A transfers the requested information along with the electronic coupon to the Client system. The Client system stores the electronic coupon in memory. In the next step 1214, the Client system initiates a transaction or requests information from a Server. The Server could be Server A or another server. At this point, depending upon the system, the Server could detect the presence of the electronic coupon on the Client system or the Client system could present the electronic coupon for redemption. In the next step 1216, the Server authenticates the electronic coupon. Depending upon the system, the Server could evaluate the electronic coupon to authenticate or validate the electronic coupon, or alternatively, the Server could transfer the electronic coupon information to an Authentication Server which could authenticate or validate the electronic coupon and authorize the transaction. In the next step 1218, the electronic coupon is used to modify or enable the transaction and the transaction is completed.

As one of ordinary skill will appreciate, it will not always be necessary for the Client system to request information from Server A. All that is necessary is for Server A to establish a

connection with the Client system in order to transfer the electronic coupon to the Client system. One method of transferring the electronic coupon is to include the electronic coupon with the information requested. Alternatively, the electronic coupon can be transferred to the Client system by any method of transferring information.

In a preferred embodiment of the invention, the Client system is a personal computer running browser software which connects to web servers via the Internet or a similar network. Preferably, a book of electronic coupons is transferred to the Client system in the form of a Cookie which is stored in memory at the Client system. The Cookie can be detected by any subsequent web server that Client system connects to. If the Client system attempts to initiate a transaction with a particular web server, the web server detects the Cookie which includes electronic coupon and uses the electronic coupon to enable or modify the transaction. In this embodiment, when the Client system receives the electronic coupon, the user can be alerted to the presence of the electronic coupon by another browser window or a java based window that identifies all the electronic coupons in the electronic coupon book, the nature of the benefit provided and provides links to the various web sites where the electronic coupons can be redeemed. Alternatively, the Client system can connect to a web server which displays the contents of the electronic coupon book in the form of a web page which describes the nature of the electronic coupon benefit and a link to the web page where the electronic coupon can be redeemed. In yet another embodiment of the invention, when the Client system receives the electronic coupon or coupon book, the Client system may be programmed to automatically provide the electronic coupon or coupon book to a peripheral printing device such that the User has automatic access to hard-copy versions of the coupons.

As one having ordinary skill in the art will appreciate, the use of the client system will typically be operated or otherwise controlled by a consumer or a customer (in business to business transactions) and the server system or systems will be operated or otherwise controlled by an organization or an agent of an organization authorized to enter into and complete the transaction. In addition, as one having ordinary skill will appreciate the entire process and system can be automated, for example whereby a client system is programmed to periodically visit websites (whether or not known to the source of electronic coupons) or the originating server can be programmed to periodically distribute electronic coupons, such as by electronic

mail, and the redeeming server can be programmed to automatically redeem the electronic coupon as part of an automated request to initiate a transaction received from an automated client system. One of ordinary skill in the art will also appreciate that the electronic coupons can include an expiration date or a window of dates when the electronic coupon is valid or effective.

In another embodiment of the invention, Cookies are transferred to, or retrieved from, a client system by a frame spawned within a primary website by JavaScript or other similar software code. This embodiment is compatible with security features included with some web browsers that limit a website to depositing and retrieving Cookies only for itself. For example, a user visiting a highly trafficked website generally receives a Cookie from that site, but a user cannot receive a cookie from a site on behalf of another site. This is because a Cookie deposited by a particular website is encoded with a signature corresponding to that website, and the browser utilizes that signature to limit Cookie transfers to only the website that created the Cookie. However, a frame spawned within the highly trafficked website can deposit a Cookie on the Client system, and a similar frame spawned within another website can subsequently read that Cookie, as long as the frames spawned on different websites look the same (i.e., have the same signature) to the browser running on the Client system. As with the other embodiments described herein, the Cookie may contain all of the necessary the coupon information, including the complete coupon data structure necessary for benefits identification, validation and authentication, or the Cookie may contain only data identifying the Client, so that the Cookie functions as a pointer to a database on a coupon clearinghouse server. If the Cookie contains the complete data structure, the script will include the code necessary to authenticate and validate the coupon. The utility of this embodiment lies in the fact that the issuer and the redeemer of the coupon need not be the same entity. For example, a producer of goods may desire to have coupons distributed to potential purchasers, but may not desire to conduct the electronic commerce necessary to redeem the coupons. In this case, the producer of goods would distribute the JavaScript (or other similar script) for generating coupon-distributing website frames to highly trafficked websites. The producer of goods would also provide the frame-generating script to point-of-sale product retailers so that the coupons could be redeemed where the product is sold. In other embodiments of the invention, the highly trafficked advertising website and the point of sale, redeeming website may be the same website. In other embodiments, the website

from which the user acquires coupons or coupon pointer information may include the clearinghouse system directly, i.e., the user need not visit a website separate from the clearinghouse.

The preceding embodiment of the invention may be implemented by a single service provider such as the entity responsible for the coupon clearinghouse server 1150. In this scenario, illustrated in FIG. 103, the producer of goods 1250 authorizes 1252 the clearinghouse 1150 to generate and distribute electronic coupons related to the relevant goods. The clearinghouse 1150 produces and distributes the necessary frame-generating script 1254 to the highly trafficked websites (i.e., the advertising websites) and to the point of sale websites (the coupon redeeming websites). A user operating a Client system 1110 initiates a connection 1302 to the one of the advertising websites (Server A 1120) and receives a Cookie 1304 from the frame 1306 spawned by the script. If the coupon is to be stored on a clearinghouse database, the advertising website establishes a connection 1308 to the clearinghouse 1150 to store coupon information associated with the Client 1110 into the clearinghouse coupon database 1310. In a preferred embodiment of the invention, the aforementioned distribution of coupons is not dependent upon any characteristics of the Client 1110 (e.g., demographics, purchasing habits etc.), although other embodiments may utilize such information to selectively distribute particular coupons to specific Clients. The user subsequently initiates a connection 1312 to one of the coupon redeeming websites (Server B 1130), and the frame 1314 spawned by the resident script retrieves the Cookie that contains either the complete coupon data structure or the Client data that points to the clearinghouse database. If the coupon has been stored on the clearinghouse database 1310, the redeeming website 1130 establishes a communications link 1316 to the clearinghouse 1150 and retrieves coupon information associated with the Client 1110. The redeeming website 1130 then authenticates the coupon, either internally based on the information embedded in the coupon, or via the connection 1316 to the clearinghouse 1150. The redeeming website 1130 then modifies the transaction with the Client 1110 by an amount defined by the coupon. As with conventional paper-based coupons, the redeeming entity (corresponding to the redeeming website 1130) is reimbursed for the amount of the transaction modification in addition to a processing fee. The redeeming entity 1130 may receive the reimbursement and fee from the producer of goods 1250 directly, or from the clearinghouse

1150. In the former case (shown in FIG. 104), upon notification 1330 of the transaction from the redeeming entity 1130, the redeeming entity receives the reimbursement and fee 1332 from the producer of goods 1250, and the clearinghouse 1150 receives a fee 1334 from the producer of goods 1250 for each coupon redeemed. In the latter case (shown in FIG. 105), upon notification from the redeeming entity 1130, the redeeming entity 1130 receives the reimbursement and fee 1332a from the clearinghouse, the clearinghouse notifies the producer of goods of the transaction, and the producer of goods reimburses the clearinghouse for the amount of the modification and the fee 1332b that the clearinghouse paid to the redeeming entity, in addition to providing a fee 1334 to the clearinghouse for the redeemed coupon.

The invention may be embodied in other specific forms without departing from the spirit or essential characteristics thereof. The present embodiments are therefore to be considered in respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, and all changes which come within the meaning and range of the equivalency of the claims are therefore intended to be embraced therein.”